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09/763,092	02/16/2001	Iwao Miyajima	AKI-C052	2721

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EXAMINER

DEPUMPO, DANIEL G

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3611

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Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 20

Application Number: 09/763,092
Filing Date: February 16, 2001
Appellant(s): MIYAJIMA, IWA0

George A. Loud
For Appellant

MAILED

SEP 29 2003

GROUP 3600

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 30, 2003.

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(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

It is noted that issue number 2.) is now moot in view of the amendment after final filed on April 1, 2003.

(7) *Grouping of Claims*

Appellant's brief includes a statement that claims 13-17 and 28 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

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(9) Prior Art of Record

5,375,677	Yamagiwa	12-1994
01-106390	Oki (Japan)	7-1989
4,134,610	Lindewall	1-1979
61-205119	Fujishita (Japan)	9-1986

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 13-17 and 28 (formerly claim 24) stand finally rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed specification does not support the new recitations that the urethane foam has a density in various ranges from 0.010g/cm³ to 0.500g/cm³. The original specification does not provide any units for the density ranges as disclosed at pages 4 and 5. Consequently appellant may not now urge that these density ranges are the patentable feature of the invention (as argued in the amendment filed August 13, 2002).
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 13-15 and 28 (formerly claim 24) stand rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagiwa '677 in view of the Japan 106,390 reference (JP '390) and further in view of Lindewall.

Yamagiwa discloses a two-wheeled motor vehicle wherein a hollow portion of the frame is filled with an acoustic material or a damping material (col. 6, line 26) such as polyurethane foam (col. 6, line 53). The foam may be introduced at a threaded opening (col. 6, lines 32 and 63). The foam is foamed after it is poured into the frame.

Yamagiwa does not specifically disclose that the foam is introduced into the swing arm section of the vehicle frame. However, JP '390 teaches a swing arm which is filled with a vibration suppressing material such as gum, sponge or the like (abstract translation). It would have been obvious to modify Yamagiwa by including the foam in the swing arm section of the frame since both Yamagiwa and JP '390 teach the desirability of adding a damping or vibration suppressing material in a hollow section of a motorcycle frame, and JP '390 specifically teaches the inclusion of such a material in a swing arm to suppress vibrations.

Regarding the recitation of "gum-based particles" (claim 28), it is noted that the term "gum" as translated is considered to be a very broad term and is considered to cover a wide category of materials. Yamagiwa discloses the use of foams including various additives, while JP'390 specifically discloses the use of "vibration suppressing material, such as gum, sponge or the like" (Abstract translation, emphasis added). At page 9 of the translation of the JP '390 reference it is disclosed that "various materials can be used as long as they have a vibration

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suppression effect (including a sound absorption effect), and the material can be selected from a wide range, such as rubber-shaped elastic body, viscoelastic body, sponge, or plastic foaming body” (emphasis added). Materials such as “rubber” and “a viscoelastic body” are considered to constitute “gum” as broadly claimed and disclosed by appellants. In view of the use of polyurethane disclosed by Yamagiwa, and the various materials such as gum and a plastic foaming body as disclosed by JP ‘390, it would have been an obvious design expedient to select a mixture of these known vibration suppressing material for their known properties, absent a statement of criticality by appellant regarding such a mixture.

Yamagiwa discloses that the foam may be introduced at a threaded opening (col. 6, lines 32 and 63), but does not specifically disclose that the threaded opening is the opening by which the swing arm is mounted to the vehicle (claim 14). However, since Yamagiwa discloses the introduction of the foam through a threaded opening, to select the mounting opening would have been an obvious design expedient. Yamagiwa also discloses that the use of random holes to fill the frame (col. 20, lines 55-60) is convenient. Thus, it would have been an obvious design expedient to introduce the foam through an opening at the end of the arm portion (claim 15). Moreover, it is noted that JP ‘390 inserts the damping material through an opening at the end of the arm portion as shown in fig. 1.

Regarding the claimed density ranges, these broad ranges appear to be inherent in expanded foam of the type disclosed by Yamagiwa. In the supplemental response filed August 13, 2002, applicant provides abstracts of numerous Japanese Kokai Publications, and states that they are “representative of countless technical publications”. These publications seem to

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establish that urethane foams generally have a density within the broad claimed ranges.

Nevertheless, neither Yamagiwa nor JP '390 specifically discloses the claimed density.

Lindewall, however, discloses a structural urethane foam having a density that falls within the claimed ranges (col. 3, lines 23 and 24). It would have been obvious to modify the combination by using a foam having the claimed density, as taught by Lindewall since commercially available structural foams commonly have such a density.

5. Claims 16 and 17 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Yamagiwa, JP '390 and Lindewall as applied to claims 13-15 and 28 above, and further in view of the Japan 205119 reference (JP '119).

As set forth above, the combination teaches substantially all that is claimed, but does not teach the use of a mesh sheet (claim 16). JP '119, however, discloses a filling method of a foaming body including the use of a "net type bag body 16" (abstract translation) to retain the "styrene acrylonitrile" (abstract translation) foam as shown in fig. 1. It would have been obvious to use a mesh sheet, or "net type body bag" as taught by JP '119, to retain the material before it is foamed.

(11) Response to Argument

Regarding the 35 U.S.C. 112, first paragraph rejection, appellant states that the "examiner did not advance any alternative theory as to what units might be understood by those skilled in the art from a reading of applicant's specification". The examiner notes that it is not up to the examiner to propagate theories as to what appellant may or may not disclose. Instead, 35 U.S.C. 112, first paragraph requires that the specification reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the

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claimed invention. The examiner notes that the density of a material may be defined using various units from various measurement systems. For example, as evidenced at pages 5 and 6 of appellant's brief, density may be defined by units such as g/cm^3 , g/dm^3 or pounds per cubic feet.

At page 6 of the brief, appellant cites *Kennecot Corp. v. Kyocera International Inc.*, 5 USPQ 2d 1194 at 1197 (Fed. Cir. 1987). "Where the disclosure inherently teaches a claimed feature, that feature is "described" within the meaning of the description requirement of the first paragraph of 35 U.S.C. 112." This implies that appellant considers the claimed density to be

inherent. However, in the amendment filed August 12, 2002, appellant's main argument for patentability is directed to the claimed density. These positions are inconsistent. It is unclear whether appellant considers the claimed density to be inherent in the claimed material, or whether appellant considers the density to be a patentable feature. It is further noted that each of the independent claims specifically recites a density range. The examiner considers that all claimed subject matter must be adequately supported by the original specification.

The rejection of claim 24 (now claim 28) for indefiniteness is moot in view of the amendment after final rejection.

Regarding the rejection of claim 28, appellant urges that the record does not establish *prima facie* obviousness of the claimed subject matter. The examiner does not agree. The examiner notes that the subject matter of claim 28 was previously presented in dependent claim 24. This subject matter was not presented in an independent claim until after final rejection. Nevertheless, regarding the recitation of "gum-based particles" (claim 28), it is noted that the term "gum" as translated is considered to be a very broad term and is considered to cover a wide category of materials. Yamagiwa discloses the use of foams including various additives, and

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JP'390 specifically discloses the use of "vibration suppressing material, such as gum, sponge or the like" (Abstract translation, emphasis added). At page 9 of the translation, of the JP '390 reference it is disclosed that "various materials can be used as long as they have a vibration suppression effect (including a sound absorption effect), and the material can be selected from a wide range, such as rubber-shaped elastic body, viscoelastic body, sponge, or plastic foaming body" (emphasis added). Materials such as "rubber" and "a viscoelastic body" are considered to constitute "gum" as broadly claimed and disclosed by appellants. In view of the use of

polyurethane disclosed by Yamagiwa for damping purposes, and the various materials such as gum and a plastic foaming body as disclosed by JP '390 for damping purposes, it would have been an obvious design expedient to select a mixture of these known vibration suppressing materials for their known properties, absent a statement of criticality by applicant regarding such a mixture.

Regarding the rejection of claims 13-17 over 35 U.S.C. 103, appellant points out that Yamagiwa teaches adding polyurethane foam only to the frame and not to the swing arm. Appellant further notes that in JP '390, the vibration suppressing materials are stuffed into the swing arm rather than being introduced and then foamed. The examiner agrees, however, in the rejection, Yamagiwa is provided for the specific teaching of using a polyurethane foam in a motorcycle frame to dampen vibrations. The JP' 390 reference is applied for the specific teaching of using a vibration damping material in a motorcycle swing arm. The examiner considers that it would have been well within the realm of obviousness to modify Yamagiwa by including the foam in the swing arm section of the frame since both Yamagiwa and JP '390 teach the desirability of adding a damping or vibration suppressing material in a hollow section of a

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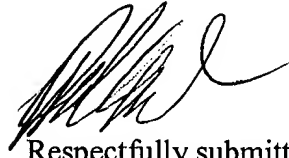
motorcycle frame, and JP '390 specifically teaches the inclusion of such a material in a swing arm to suppress vibrations.

In response to appellant's argument that there is no suggestion to combine the teachings of Lindewall, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Lindewall is merely applied as evidence that polyurethane foams commonly have a density within the broad ranges claimed.

Regarding Yamagiwa, appellant urges that the reference does not have a threaded opening to permit introduction of the foam. To the contrary, as pointed out in the rejection, Yamagiwa discloses such a threaded hole at col. 6, lines 32 and 63. Appellant further argues that Yamagiwa does not teach an opening at a distal end to permit introduction of the foam. The examiner does not agree because Yamagiwa discloses that the use of random holes to fill the frame (col. 20, lines 55-60) is convenient. Thus, it would have been an obvious design expedient to introduce the foam through an opening at the end of the arm portion (claim 15). Moreover, it is noted that JP '390 inserts the damping material through an opening at the end of the arm portion as shown in fig. 1.

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For the above reasons, it is believed that the rejections should be sustained.



Respectfully submitted,

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Primary Examiner
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dgd

September 25, 2003

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